

## CLAIMS

We claim:

- 1           1.     A vibration damper with variable damping force, comprising:  
2               a working cylinder filled with damping medium;  
3               a piston fastened to a piston rod arranged in an axially movable manner in said  
4 working cylinder and dividing the working cylinder into two working spaces;  
5               first and second non-return valves arranged in said piston for respectively  
6 providing a damping force for the rebound and compression directions of the vibration damper;  
7 and  
8               a damping valve arranged in one of said piston and said piston rod having a  
9 variable damping action and arranged in series with each of said first and second non-return  
10 valves, thereby acting in both said rebound and compression directions of the vibration damper.
- 1           2.     The vibration damper of claim 1, wherein said damping valve comprises  
2 an externally activated actuator for adjusting said variable damping action.
- 1           3.     The vibration damper of claim 1, wherein at least one of said first and  
2 second non-return valves comprises an element from the group consisting of a spring lock and a  
3 spring-loaded valve disk.
- 1           4.     The vibration damper of claim 1, wherein a characteristic of said damping  
2 valve is precontrollable to a precontrolled setting in at least one of the rebound direction and the  
3 compression direction.

1                   5.     The vibration damper of claim 4, wherein said actuator for said damping  
2 valve comprises an electromagnet.

1                   6.     The vibration damper of claim 1, wherein said first and second non-return  
2 valves are accommodated together with their associated valve seats in said piston.

1                   7.     The vibration damper of claim 1, wherein said first and second non-return  
2 valves are preassembled with their associated valve seats as a modular unit and are fixedly  
3 connected in said piston.

1                   8.     The vibration damper of claim 1, wherein said first and second non-return  
2 valves and said damping valve are arranged in said piston.

1                   9.     The vibration damper of claim 1, wherein said first and second non-return  
2 valves communicate with one of said upper and lower working spaces and said damping valve  
3 actuates via at least one flow connection to the other of said upper and lower working spaces.

1                   10.    The vibration damper of claim 9, wherein said damping valve comprises a  
2 valve body that is precontrollable to a precontrolled setting in one of said rebound and  
3 compression directions and directly controllable via an actuator in the other of said rebound and  
4 compression directions.